Electronic Version
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OPTIMUM PADSET FOR WIRE BONDING RF TECHNOLOGIES WITH HIGH-Q INDUCTORS

Abstract

An RF structure that includes an optimum padset for wire bonding and a high performance inductor that contains relatively thick metal inductor wires, both of which are located atop the final interconnect level of an interconnect structure. Specifically, the RF structure includes a dielectric layer having metal inductor wires of a first thickness and a metal bond pad having a major area of a second thickness located on a surface thereof, wherein the first thickness is greater than the second thickness. In the inventive RF structure, the majority of the metal bond pad is thinned for wire bonding, while maintaining the full metal wire thickness in the other areas of the structure for inductor performance requirements, such as, for example, low resistivity. Methods for fabricating the aforementioned RF structure are also provided.